

## Claims

1. A portable recording and/or reproducing device, comprising:  
reproducing means for performing reproduction processing on digital data read out from a predetermined recording medium recording said digital data;  
manipulating means for making an instruction of reproducing said digital data recorded in said recording medium;  
control means for reading said digital data from said recording medium in accordance with said reproduction instruction input with said manipulating means, sending it to said reproducing means, and controlling said reproducing means so as to perform the reproduction processing on said digital data; and  
a cylindrical case for containing said reproducing means and said control means, and wherein  
said control means is provided on one end side on one plane in the longitudinal direction of said cylindrical case.
2. The portable recording and/or reproducing device according to Claim 1, comprising:  
digital-to-analog converting means for producing an analog signal by digital-to-analog converting said digital data which has been subjected to the reproduction processing by said reproducing means; and  
a jack provided on said one end side in said longitudinal direction of the case to allow an external connection plug to be

inserted therein, which has a terminal for outputting said analog signal obtained from said digital-to-analog converting means, to said connection plug inserted.

3. The portable recording and/or reproducing device according to Claim 2, wherein

said jack is provided in said case so that said connection plug is projected from the other end side toward one end side in said longitudinal direction.

4. The portable recording and/or reproducing device according to Claim 3, wherein

said jack is provided so that the direction of inserting said connection plug is slant with respect to said longitudinal direction of said case.

5. The portable recording and/or reproducing device according to Claim 1, comprising

strap attaching means which is provided on said one end side in the longitudinal direction of said case for attaching a predetermined strap thereto.

6. The portable recording and/or reproducing device according to Claim 5, wherein

said strap attaching means allows said dangling strap to be

attached thereto.

7. The portable recording and/or reproducing device according to Claim 1, comprising:

a circuit board which is contained in said case with loading an Integrated Circuit package which constitutes at least a part of said control means; and

projecting parts for containing a part of said circuit board, which are formed so that a part of said case projects in accordance with the form of said circuit board.

8. The portable recording and/or reproducing device according to Claim 7, wherein

said projecting parts are formed in said longitudinal direction of said case.

9. The portable recording and/or reproducing device according to Claim 1, comprising

a clip which is provided on said one end side in said longitudinal direction of said case to attach the case to a user's body, clothes, and belongings;

10. The portable recording and/or reproducing device according to Claim 1, comprising:

an interface for taking in said digital data which is

transferred from outside; and

recording means for recording said digital data taken in by said interface, to said recording medium.

11. The portable recording and/or reproducing device according to Claim 10, wherein

said interface takes in said digital data which is transferred from said outside on Internet.

12. The portable recording and/or reproducing device according to Claim 11, wherein

said interface is a connector based on the Universal Serial Bus standard.

13. The portable recording and/or reproducing device according to Claim 1, wherein

said control means read out said digital data which has been compressed with the MPEG Audio Layer-3 method, from said recording medium, in accordance with said reproduction instruction input with said manipulating means.

14. The portable recording and/or reproducing device according to Claim 1, wherein

said control means reads out said digital data which has been compressed by the Adaptive Transform Acoustic Coding-3 method,

from said recording medium, in accordance with said reproduction instruction input with said manipulating means.

15. The portable recording and/or reproducing device according to Claim 1, wherein

said case is formed in a cylindrical form.

16. A portable recording and/or reproducing device, comprising:  
reproducing means for performing reproduction processing on digital data which is read out from a predetermined recording medium recording said digital data;

manipulating means for making an instruction of reproducing said digital data recorded in said recording medium;

control means for reading out said digital data from said recording medium in accordance with said reproduction instruction input with said manipulating means, sending it to said reproducing means, and controlling said reproducing means so as to perform the reproduction processing on said digital data;

a cylindrical case for containing said reproducing means and said control means;

a strap attaching means provided on one end side in the longitudinal direction of said cylindrical case; and

a strap to be attached to said strap attaching means, and wherein

said manipulating means is provided on said one end side of

one plane in said longitudinal direction of said case.

17. The portable recording and/or reproducing device according to Claim 16, comprising:

digital-to-analog converting means for producing an analog signal by digital-to-analog converting said digital data which has been subjected to the reproduction processing by said reproducing means; and

a jack provided on said one end side in said longitudinal direction of said case to allow an external connection plug to be inserted therein, which has a terminal for outputting said analog signal obtained from said digital-to-analog converting means to said connection plug inserted, and wherein

said strap has a ring part and a holding means for integrally holding a code introduced from said connection plug and said ring part.

18. The portable recording and/or reproducing device according to Claim 17, wherein

said ring part comprises:

band member; and

sticking means for sticking one end on the back plane of said band member to the other end on the front plane of the band member.

19. The portable recording and/or reproducing device according to Claim 18, wherein

said sticking means is a sticking tape for detachably sticking said one end on said back plane of said band member to said the other end on said front plane of the band member.

20. The portable recording and/or reproducing device according to Claim 17, wherein

said jack is provided on one end side in said longitudinal direction of said case.

21. The portable recording and/or reproducing device according to Claim 17, wherein

said jack is provided in said case so that said connection plug is projected from the other end side toward said one end side in said longitudinal direction of said case.

22. The portable recording and/or reproducing device according to Claim 17, wherein

said jack is provided in said case so that the direction of inserting said connector plug is slanted with respect to said longitudinal direction of said case.

23. The portable recording and/or reproducing device according to Claim 16, comprising:

a circuit board which is contained with loading an Integrated Circuit package which constitutes at least a part of said control means; and

projecting parts for containing a part of said circuit board, which are formed so that a part of said case projects corresponding to the form of said circuit board, .

24. The portable recording and/or reproducing device according to Claim 23, wherein

said projecting parts are formed in said longitudinal direction of said case.

25. The portable recording and/or reproducing device according to Claim 16, comprising

a clip provided on said one end side in said longitudinal direction of said case, to attach the case to a user's body, clothes or belongings.

26. The portable recording and/or reproducing device according to Claim 16, comprising:

an interface for taking in said digital data which is transferred from outside; and

recording means for recording said digital data taken in by said interface, to said recording medium.



27. The portable recording and/or reproducing device according to Claim 26, wherein

said interface takes in said digital data which is transferred from said outside on Internet.

28. The portable recording and/or reproducing device according to Claim 26, wherein

said interface is a connector based on the Universal Serial Bus standard.

29. The portable recording and/or reproducing device according to Claim 16, wherein

said control means reads out said digital data which has been compressed with the MPEG Audio Layer-3 method, from said recording medium, in accordance with said reproduction instruction input with said manipulating means.

30. The portable recording and/or reproducing device according to Claim 16, wherein

said control means reads out said digital data which has been compressed by the Adaptive Transform Acoustic Coding-3 method, from said recording medium, in accordance with said reproduction instruction input with said manipulating means.

31. The portable recording and/or reproducing device according

to Claim 16, wherein

said case is formed in a cylindrical form.

32. A recording method, wherein:

when manipulating means provided on one end side on one plane in the longitudinal direction of a cylindrical case is manipulated to make an instruction of reproducing digital data recorded in a predetermined recording medium built in said case, said digital data is read out from said recording medium in accordance with the reproduction instruction and the read digital data is subjected to the reproduction processing; and

when said manipulating means is manipulated to make an instruction of stopping the reproduction of said digital data while performing said reproduction processing on said digital data, the reproduction of the digital data is stopped.

33. A recording/reproducing method, wherein

digital data which is transferred from outside is taken in an interface provided in a cylindrical case, and is recorded in a predetermined recording medium built in the case;

when manipulating means provided on one end side on one plane in the longitudinal direction of said cylindrical case is manipulated to make an instruction of reproducing digital data recorded in a predetermined recording medium built in said case, said digital data is read out from said recording medium in

accordance with the reproduction instruction and the read digital data is subjected to the reproduction processing; and

when said manipulating means is manipulated to make an instruction of stopping the reproduction of said digital data while performing said reproduction processing on said digital data, the reproduction of the digital data is stopped.

34. A reproducing method, wherein:

manipulating means provided on one end side on one plane in the longitudinal direction of a cylindrical case is manipulated with a user's thumb to make an instruction of reproducing digital data recorded in a predetermined recording medium which is removably stored in said case, said digital data is read out from said recording medium inserted in said case in accordance with the reproduction instruction and the digital data read is subjected to the reproduction processing; and

when manipulating means is manipulated with the user's thumb to make an instruction of stopping the reproduction of said digital data while performing said reproduction processing on said digital data, the reproduction of the digital data is stopped.

35. A recording/reproducing method, wherein:

digital data which is transferred from outside is taken in an interface provided in a cylindrical case and is recorded in a predetermined recording medium which is removably inserted in the

case;

when manipulating means provided on one end side on one plane in the longitudinal direction of a cylindrical case is manipulated with a user's thumb to make an instruction of reproducing said digital data from a predetermined recording medium inserted in said case, said digital data is read out from said recording medium in accordance with the reproduction instruction and the read digital data is subjected to the reproduction processing; and

when said manipulating means is manipulated with the user's thumb to make an instruction of stopping the reproduction of said digital data while performing said reproduction processing on said digital data, the reproduction of the digital data is stopped.